

### **Abstract**

The invention relates to a method for navigation during medical interventions on tubular organ structures, characterized in that, before the intervention, static image data of the tubular organ structures are recorded and stored, the tubular organ structures are extracted from the image data and their course is converted into a geometric description used during the medical intervention for instrument/organ recording, and the instrument that is spatially localized by a tracking system is successively corrected in relation to the static data, by a transformation that is preferably defined by an optimization method, taking into account the geometric description and information on the previous distance covered by the instrument, or, conversely, the static data are successively corrected in relation to the instrument position, and thus the position of the instrument is associated with the anatomical structures in the static image data.